| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/370,152 | 08/09/1999 | SHOJI SUZUKI | 381NP/48110 | 7664 |

7590 09/15/2004

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| EXAMINER |
|---|
| CHOUDHARY, ANITA |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2153 | |

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/370,152 | SUZUKI, SHOJI |
| | Examiner | Art Unit |
| | Anita Choudhary | 2153 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>21 June 2004</u>.

2a)☒ This action is **FINAL**.     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>5,6,8-16 and 18-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>5,6,8-16 and 18-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 June 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *  c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

The amendment filed on June 21, 2004 has been entered.   Claims 5, 8, 10, 12, 13, 16, 21,

and 22 have been amended and are presented for further examination.  Claims 1-4, 7, 17, and 23-

45 have been cancelled.

Claims 5, 6, 8-16, and 18-22 are presented.

### *Response to Arguments*

Applicant's arguments with respect to claim 5 have been considered but are moot in view

of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

Claims 5, 6, 8-16, and 18-22 are rejected under 35 U.S.C. 102(e) as being anticipated by

Green et al (US 6,111,888).

Green discloses a system for deterministically communicating between nodes using

Controller Area Network protocol. A master node sends out a periodic synchronization message

which facilitates the transmission of real-time and non-real time data in accordance to set

priorities (See abstract).

A distributed control system comprising a network (fig. 1, 100) and at least one control

unit (101, 102, 103) having a communication means (105, 110, 115 and CAN-D Bus 104) for

connecting to said network, wherein said control unit comprises:

a message object configuration information storing means ("master node") for storing a

starting procedure of at least one message object (sync message) having a network

communication function (col. 7 lines 31-46), the message object being for performing

communication processing between application programs (513-515) each of which is constituted

by at least one software module (col. 12 lines 2-6), and the message object configuration

information storing means comprising a communication processing priority indicating a priority

to execute communication processing (col. 11 lines 3-27, col. 10 lines 45-50); and

a real-time communication processing control means (CAN controller) for executing said

message object based on the priority (priority message arbitration) by referring to said message

object configuration information storing means (col. 6 lines 19-27, col. 10 lines 9-36, col. 10

lines 45-50, Note that real-time messages from real-time nodes is given priority during "real-time

segment").


In referring to claim 6 and 14, Green shows a system wherein said real-time

communication processing control means is a software module executed by a task (sending of

message, col. 5 lines 58-63).

In referring to claim 8 and 18, Green shows a system wherein said message object

configuration information storing means comprises information indicating any one of in-unit

communication and inter-unit communication, and the communication processing priority in

regard to the inter-unit communication (fig. 3, col. 9 lines 1-32, col. 10 lines 1-11).

In referring to claim 9 and 19, wherein said message object configuration information

storing means comprises kinds of communication services (different application 513-515, col. 11

lines 64- col. 12 line 2).


In referring to claim 10, Green discloses a:

A module configuration information storing means (master node) for storing starting

procedure of at least one software module which constitutes an application program (col. 7

lines36-46, Note that Green shows sending sync messages in order to begin transmission of

application data).

a message object configuration information storing means ("master node") for storing a

starting procedure of at least one message object (sync message) having a network

communication function (col. 7 lines 31-46), the message object being for performing

communication processing between application programs (513-515) each of which is constituted

by at least one software module (col. 12 lines 2-6), and the message object configuration

information storing means comprising a communication processing priority indicating a priority

to execute communication processing (col. 11 lines 3-27, col. 10 lines 45-50); and

a module start control means (software router 516)for executing the software module,

referring to module configuration information storing means (col. 11 lines 57-67); and

a real-time communication processing control means (CAN controller) for executing said

message object based on the priority (priority message arbitration) by referring to said message

object configuration information storing means (col. 6 lines 19-27, col. 10 lines 9-36, col. 10

lines 45-50, Note that real-time messages from real-time nodes is given priority during "real-time

segment").

In referring to claim 11, Green shows system wherein said module start control means is

a task (sending sync message, col. 7 lines 31-35).

In referring to claim 12, Green shows a system wherein said module start control means

(software router 516) is a function included in an operating system (col. 11 lines 57-60).

In referring to claim 13, Green shows a system wherein program module configuration

information storing means includes software module information to be executed next (col. 12

lines 6-13).

In referring to claim 15, Green shows a system wherein said real-time commutation

processing control means is a software module executed in a task (col. 5 lines 55-65).

In referring to claim 16, Green shows a system wherein said real-time communication

processing control means is a function included in an operating system (col. 5 lines 39-41).

In referring to claim 20, Green shows a system wherein said message object configuration information storing means includes software module information to be executed next (col. 12 lines 6-14).

In referring to claim 21, Green shows a system wherein a module configuration information string means for storing a starting means for at least one software module, which constitutes an application program (col. 7 lines 36-46, Note that Green shows sending sync messages in order to begin transmission of application data).

A message object configuration information storing means ("master node") for storing a starting procedure of at least one message object (sync message) having a network communication function (col. 7 lines 31-46), the message object being for performing communication processing between application programs (513-515) each of which is constituted by at least one software module (col. 12 lines 2-6), and the message object configuration information storing means comprising a communication processing priority indicating a priority to execute communication processing (col. 11 lines 3-27, col. 10 lines 45-50); and

a module start control means (software router 516) for executing the software module, referring to module configuration information storing means (col. 11 lines 57-67); and

a real-time communication processing control means (CAN controller) for executing said message object based on the priority (priority message arbitration) by referring to said message object configuration information storing means (col. 6 lines 19-27, col. 10 lines 9-36, col. 10 lines 45-50, Note that real-time messages from real-time nodes is given priority during "real-time segment");

a computer (master node) having information to be stored (fig. 5, 512) in said module

configuration information storing means; and an initializing means (sending of sync messages)

existing in said control unit (500) for storing the information in said module configuration

information storing means, wherein said control unit, the computer and the initializing means are

connected to a network (col. 7 lines 36-60).

In referring to claim 22, Green shows a system further comprises a distributed control

middleware code generating tool which receives system configuration information and outputs a

program code composed of information to be stored in said module configuration information

storing means and said module ' start control means (col. 12 lines 2-14).

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita Choudhary
September 3, 2004
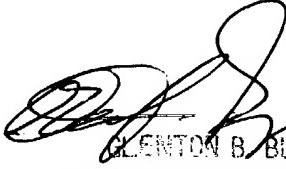
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